

In the Claims:

1. (Currently Amended) A device comprising:
a light modulator; and
a lens array configured to focus light on high contrast portions of the light modulator;

wherein the high contrast portions comprise non-perimeter portions of individual pixels of the light modulator.

2. (Cancel)

3. (Cancel)

4. (Original) The device according to Claim 1, wherein the light modulator comprises a reflective microdisplay.

5. (Original) The device according to Claim 4, wherein the reflective microdisplay comprises a LCoS microdisplay.

6 – 11 (Cancel)

12. (Currently Amended) A kernel comprising:
a prism assembly comprising a set of modulating faces and a set of optical components configured to separate light from the light source into a set of component light beams and individually direct each component light beam to one of the modulating faces;
a reflective microdisplay mounted on one of the modulating faces; and
a lens array configured to focus beams of light individually on individual high contrast portions of the microdisplay;

wherein each high contrast portion of the microdisplay comprises a non-perimeter section of a pixel of the microdisplay.

13. (Original) The device according to Claim 12, wherein the lens array comprises an array of convex lenses.

14. (Original) The device according to Claim 12, wherein the lens array comprises a flat plate of glass having a series of peaks, each peak corresponding to one of the high contrast portions of the microdisplay.

15. (Original) The device according to Claim 12, wherein at least one high contrast portion comprises a group of pixels of the microdisplay.

16. (Original) The device according to Claim 12, wherein at least one high contrast portion comprises a pixel of the microdisplay.

17. (Original) The device according to Claim 12, wherein each high contrast portion of the microdisplay comprises a high contrast portion of a pixel of the microdisplay.

18. (Cancel)

19. (Original) The device according to Claim 12, wherein each lens of the lens array comprises a stack of transparent layers.

20. (Original) The device according to Claim 19, wherein said layers are stair stepped.

21. (Original) The device according to Claim 20, wherein said layers are glass.

22. (Currently Amended) A method comprising the steps of:
focusing individual light beams on high contrast portions of a light modulator; and

individually modulating each of the light beams via the high contrast portion of the light modulator upon which they are focused;

wherein each high contrast portion of the light modulator comprises a non-perimeter portion of a pixel of the light modulator.

23. (Original) The method according to Claim 22, wherein the light modulator is a reflective Liquid Crystal on Silicon (LCoS) microdisplay.

24. (Original) The method according to Claim 22, wherein the high contrast portions of the light modulator comprise groups of pixels of the light modulator.

25. (Original) The method according to Claim 22, wherein each high contrast portion of the light modulator comprises a high contrast portion of a pixel of the light modulator.

26 - 27 (Cancel)

28. (Currently Amended) A LCoS television, comprising:

a light source;

a projection lens;

a display screen;

a prism assembly comprising a set of processing faces and a set of optical components configured to separate light from the light source into a set

of component light beams and individually direct each component light beam to one of the processing faces; and

a LCoS microdisplay package mounted to each processing face;

wherein:

each microdisplay package comprises a reflective LCoS microdisplay and a lens array configured to individually focus beams of light on a one-to-one basis onto high contrast portions of the microdisplay comprising non perimeter portions of pixels of the microdisplay;

the prism assembly is further configured to recombine light reflected from the processing faces and output the recombined light to the projection lens; and

the projection lens is configured to project the recombined light onto the display screen.

29. (Currently Amended) A projector, comprising:

a light source;

a projection lens;

a prism assembly comprising a set of processing faces and a set of optical components configured to separate light from the light source into a set of component light and individually direct each component light beam to one of the processing faces and recombine light reflected from the processing faces and output the recombined light to the projection lens; and

a modulation package mounted on each processing face;

wherein each modulation package comprises a light modulator and a lens array configured to focus beams of light individually on individual non-perimeter portions of pixels ~~high contrast portions~~ of the light modulator.

30. (Original) The projector according to Claim 29, wherein the projector is installed in a television.

31. (Original) The projector according to Claim 30, wherein the light modulators comprise reflective LCoS microdisplays.

32. (Currently Amended) An optical device, comprising:
a microdisplay comprising a set of pixels, each pixel comprising a first non-perimeter region of the pixel and a second region comprising the pixel perimeter where the first region has higher contrast compared to the second region;

a lens array comprising a series of lenses, each lens corresponding on a one-to-one basis to a respective one of the microdisplay pixels;

wherein each lens is configured to focus light only on the first higher contrast region of its corresponding microdisplay pixel.

33 – 34 (Cancel).

35. (Previously presented) The optical device according to Claim 32, wherein the microdisplay comprises a reflective Liquid Crystal on Silicon (LCoS) microdisplay installed in a projection system.

36 – 41 (Cancel)

42. (Currently Amended) A projector, comprising:
a set of microdisplays configured to individually modulate at least three color light beams that comprise an image to be projected from the projector;

a set of lens arrays, each lens array matched to a respective microdisplay of the set of microdisplays; and

each lens array is configured to focus individual light beams on non-perimeter portions of pixels ~~light on high contrast portions~~ of its respective microdisplay;

wherein the high contrast portions of each microdisplay comprise non-perimeter portions of pixels of the microdisplay.

43. (Cancel)

44. (Previously presented) The projector according to Claim 42, wherein the microdisplays comprise Liquid Crystal on Silicon (LCoS) microdisplays.

45 – 46 (Cancel)

47. (New) A kernel comprising:

a prism assembly comprising a set of modulating faces and a set of optical components configured to separate light from the light source into a set of component light beams and individually direct each component light beam to one of the modulating faces;

a reflective microdisplay mounted on one of the modulating faces; and

a lens array configured to focus beams of light individually on individual high contrast portions of the microdisplay;

wherein:

each high contrast portion of the microdisplay is a non-perimeter section of a pixel of the microdisplay; and

each lens of the lens array comprises a stack of transparent layers.

48. (New) The device according to Claim 47, wherein said layers are stair stepped.

49. (New) The device according to Claim 48, wherein said layers are glass.

50. (New) The device according to Claim 47, wherein the kernel is part of a projection television.

51. (New) A method comprising the steps of:
focusing individual light beams on high contrast portions of a light modulator; and
individually modulating each of the light beams via the high contrast portion of the light modulator upon which they are focused;
wherein each high contrast portion of the light modulator is a non-perimeter portion of a pixel of the light modulator;
wherein said step of focusing comprises focusing individual light beams on the non-perimeter portions of pixels of the light modulator.

52. (New) The optical device according to Claim 32, wherein the optical device is installed in a light channel of a multi-channel prism assembly.

53. (New) A device comprising:
a light modulator; and
a lens array configured to focus light on high contrast portions of the light modulator;
wherein the high contrast portions are non-perimeter portions of individual pixels of the light modulator.

54. (New) The kernel according to Claim 53, wherein the light modulator comprises a Liquid Crystal on Silicon (LCoS) Microdisplay.

55. (New) The device according to Claim 53, wherein the device is part of a Liquid Crystal on Silicon (LCoS) projection television.

56. (New) The device according to Claim 12, wherein the light modulator comprises a Liquid Crystal on Silicon (LCoS) Microdisplay.

57. (New) The device according to Claim 12, wherein the device is part of a projection television.

58. (New) The device according to Claim 12, wherein the kernel is part of a Liquid Crystal on Silicon (LCoS) projection television.

59. (New) The method according to Claim 22, wherein the light modulator comprises a Liquid Crystal on Silicon (LCoS) Microdisplay.

60. (New) The method according to Claim 22, wherein the method is part of a projection television.

61. (New) The method according to Claim 22, wherein the method is part of a Liquid Crystal on Silicon (LCoS) projection television.

62. (New) The optical device according to Claim 32, wherein the microdisplay comprises a Liquid Crystal on Silicon (LCoS) microdisplay.

63. (New) The optical device according to Claim 32, wherein the optical device is part of a projection television.

64. (New) The optical device according to Claim 32, wherein the optical device is part of a Liquid Crystal on Silicon (LCoS) projection television.